

REMARKS/ARGUMENTS

Reconsideration of this patent application is respectfully requested in view of the following remarks.

The claims are 3-23 and 25-34 and are as previously presented in the Preliminary Amendment Accompanying Request for Continued Examination filed May 12, 2009.

Independent claims 31-34 and dependent claims 3-10, 13-14, 16-18, 21, and 25-30 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Council U.S. Patent No. 5,775,417* in view of *Avakov, U.S. Patent No. 5,094,340*. Claims 11-12, 19-20, and 22-23 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Council* in view of *Avakov* in further view of *Haugwitz U.S. Patent No. 3,144,949*. Claim 15 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Council* in view of *Avakov* in view of *Perrella U.S. Patent No. 4,360,054*.

The rejections are respectfully traversed.

As set forth in independent claims 31 and 33, Applicant's invention provides a drawing machine for drawing a linear workpiece (10) through a drawing die. The drawing machine includes a caterpillar conveyor (1) with a first chain carrier

(2), a second chain carrier (3), a first tool chain (6) and a second tool chain (9). The first chain carrier (2), second chain carrier (3), first tool chain (6) and second tool chain (9) are disposed in and form a drawing plane (19) in which the workpiece to be drawn is caused to move. The drawing machine includes a frame (15) supporting the caterpillar conveyor (1). The frame (15) has a first frame half (16) disposed on a first side (18) of the drawing plane (19) and a second frame half (17) disposed on a second side (20) of the drawing plane (19). The first frame half (16) is substantially identical to the second frame half (17) such that the frame (15) has a substantially symmetrical structure with respect to the drawing plane (19).

As further set forth in independent claim 31, at least one of the first chain carrier (2) and the second chain carrier (3) is displaceable relative to the frame (15) via a pressure cylinder (14) rigidly coupled to the frame (15). The first frame half (16) includes a first main beam (23) and the second frame half (17) includes a second main beam (24) and each of the first main beam (23) and the second main beam (24) is subjected to a substantially equal tensile load (27, 28) in a respective tensile region (30) when press-on forces are applied to the workpiece (10), thereby providing for a substantially equal distribution of the press-on forces (13) which are absorbed by the frame (15).

As further set forth in independent claim 33, a cross bar (21) joins the first frame half (16) and the second frame half (17). A first pressure cylinder and a second pressure cylinder (14) are coupled to the frame (15), with at least one of the first and second pressure cylinder disposed on the cross bar (21). The first pressure cylinder (14) displaces the first chain carrier (2) relative to the frame (15) and the second pressure cylinder displaces the second chain carrier (3) relative to the frame (15). Press-on forces (13) departing from the first and second pressure cylinders (14) are absorbed by the frame (15) in a substantially equally distributed manner with one half of the press-on forces absorbed by the first frame half (16) and one half of the pres-on forces absorbed by the second frame half (17).

As set forth in independent claims 32 and 34 , Applicant's invention provides a method of drawing a linear workpiece (10) through a drawing die. The method includes the steps of moving the workpiece to be drawn in a drawing plane (19) formed by a first chain carrier (2), a second chain carrier (3), a first tool chain (6) and a second tool chain (9) of a caterpillar conveyor (1). The first chain carrier (2), second chain carrier (3), first tool chain (6) and second tool chain (9) are disposed in

the drawing plane (19). The method further includes the step of providing a frame (15) supporting the caterpillar conveyor (1). The frame (15) has a first frame half (16) disposed on a first side (18) of the drawing plane (19) and a second frame half (17) disposed on a second side (20) of the drawing plane (19). The first frame half (16) is substantially identical to the second frame half (17) such that the frame (15) has a substantially symmetrical structure with respect to the drawing plane (19).

As further set forth in independent claim 32, at least one of the first chain carrier (2) and second chain carrier (3) is displaceable relative to the frame (15) via a pressure cylinder (14) rigidly coupled to the frame (15). The first frame half (16) includes a first main beam (23) and the second frame half (17) includes a second main beam (24) and each of the first main beam (23) and second main beam (24) is subjected to a substantially equal tensile load (27, 28) in a respective tensile region (30) when press-on forces (13) are applied to the workpiece (10), thereby providing for a substantially equal distribution of the press-on forces (13) which are absorbed by the frame (15).

As further set forth in set forth in independent claim 34, a cross bar (21) joins the first frame half (16) and second frame half (17). A first pressure cylinder and a second pressure

cylinder (14) are coupled to the frame (15) and at least one of the first pressure cylinder and second pressure cylinder is disposed on the cross bar (21). The first chain carrier (2) is displaced relative to the frame (15) with the first pressure cylinder (14) and the second chain carrier (3) is displaced relative to the frame (15) with the second pressure cylinder (14). Press-on forces (13) departing from the first and second pressure cylinders (14) are absorbed with the frame (15) in a substantially equally distributed manner, with one half of the press-on forces absorbed by the first frame half (16) and one half of the press-on forces absorbed by the second frame half (17).

The cited references fail to teach or suggest a drawing machine or a method for drawing a linear workpiece as recited in Applicant's independent claims 31-34.

In particular, the Examiner has now taken the position that Avakov shows a pressure cylinder (36) rigidly coupled to a frame (38), which frame includes a first frame half disposed on a first side of the drawing plane (where 30 is) and a second frame half disposed on a second side of the drawing plane (where 30 is). As set forth below, it is respectfully submitted Avakov does not teach or suggest a pressure cylinder rigidly coupled to a frame including a first frame half disposed on a first side of a

drawing plane and a second frame half disposed on a second side of the drawing plane as recited in Applicant's claims.

In particular, Applicant's independent claims 31 and 33 each recite:

*said first chain carrier (2), said second chain carrier (3), said first tool chain (6) and said second tool chain (9) are disposed in and form a drawing plane (19) in which the workpiece to be drawn is caused to move*

Likewise, Applicants' independent claims 32 and 34 each recite:

*moving the workpiece to be drawn in a drawing plane (19) formed by a first chain carrier (2), a second chain carrier (3), a first tool chain (6) and a second tool chain (9) of a caterpillar conveyor (1), said first chain carrier (2), said second chain carrier (3), said first tool chain (6) and said second tool chain (9) being disposed in the drawing plane (19)*

Thus, Applicant's claims clearly define the drawing plane such that the first tool chain (6) and second tool chain (9) are disposed in and form the drawing plane. Accordingly, the drawing plane of the device shown in FIG. 1 of Avakov is the plane of the paper, i.e. the plane in which the two roller chains 42 lie. Applying this correct construction of the "drawing plane" as recited in Applicant's claims, it is readily seen that Avakov nowhere teaches or suggests a first frame half disposed on a first side of the drawing plane and a second frame half disposed

on a second side of the drawing plane as recited in Applicant's claims.

It is apparent from the interpretation of Avakov presented in the Office Action that the Examiner has defined the drawing plane as being perpendicular to the plane of the paper on which FIG. 1 of Avakov is printed. This is expressly contrary to the definition of the "drawing plane" as recited in Applicant's claims which requires, *inter alia*, that the first and second tool chains are disposed in and form the drawing plane.

In view of the foregoing, it is respectfully submitted that one of ordinary skill in the art would not combine Avakov with Council in the manner proposed by the Examiner.

Moreover, with respect to the drawing plane as defined in Applicant's claims, i.e., the plane of the paper in FIG. 1 of Avakov, the device according to Avakov does not provide for a substantially equal distribution of press-on forces. Rather, Avakov provides for press-on forces that are not symmetric relative to the drawing plane, since pressure cylinders (36) are provided only below the paper (drawing) plane.

Thus, even if one were to make the combination of Council and Avakov as proposed by the Examiner, one would not achieve the

drawing machine or method for drawing a linear workpiece as recited in Applicant's independent claims 33 and 34. In particular, Applicant's independent claim 33 recites:

*wherein press-on forces (13) departing from the first and second pressure cylinders (14) are absorbed by said frame (15) in a substantially equally distributed manner with one half of the press-on forces absorbed by the first frame half (16) and one half of the pres-on forces absorbed by the second frame half (17).*

Applicant's independent claim 34 recites:

*absorbing press-on forces (13) departing from said first and second pressure cylinders (14) with said frame (15) in a substantially equally distributed manner with one half of the press-on forces absorbed by said first frame half (16) and one half of the pres-on forces absorbed by said second frame half (17).*

As set forth above, the pressure cylinders (36) according to Avakov are arranged on the same side of the drawing plane as defined in Applicant's claims. Accordingly, even if the multiple cylinder arrangement of Avakov were incorporated into the Council device, the recited substantially equal distribution of forces with respect to a first frame half disposed on one side of the drawing plane and a second frame half disposed on another side of the drawing plane would not be achieved by the hypothetical combination.

In addition, the Examiner has used contradicting definitions for the feature of the frame recited in Applicant's claims. With reference to *Council*, the Examiner has taken the position that the frame is the cage surrounding the roller chains, whereas with reference to *Avakov*, the Examiner has defined the frame as the pressure beams (38) lying within the roller chains. It is respectfully submitted that the Examiner's interpretation is contrary to what one of ordinary skill in the art would have believed these references to teach. In particular, the pressure beams (38) lying within the roller chains in *Avakov* cannot be considered a frame supporting a caterpillar conveyor as recited in Applicant's claims.

The secondary references to *Haugwitz* and *Perrella* have been considered, but are believed to be no more relevant. In particular, neither of the secondary references teach or suggest a drawing machine or method for drawing a linear workpiece through a drawing die having a first frame half being substantially identical to a second frame half such that the frame comprises a substantially symmetrical structure with respect to the drawings plane, as set forth in Applicant's claims.

Accordingly, for at least the reasons set forth above, it is believed that independent claims 31, 32, 33 and 34 are allowable over the cited references, either alone or in combination. Moreover, claims 3-23, which depend directly or indirectly on claim 31, and claims 25-30, which depend directly or indirectly on claim 32, are believed to be allowable for at least the reasons set forth for independent claims 31 and 32.

In view of the foregoing, it is respectfully requested that the claims be allowed and that this application be passed to issue. Applicant respectfully requests that a timely Notice of Allowance be issued in this case.



Respectfully submitted,  
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